The EnBW Group

Finance and strategy goal dimensions

Results of operations

Electricity sales increase, gas sales up due to full consolidation of VNG

Electricity sales of the EnBW Group (without Grids)

in billions of kWh	Sales		Renewable Energies		Generation and Trading		Total (without Grids)		Change in %
	2018	2017	2018	2017	2018	2017	2018	2017	
Retail and commercial customers (B2C)	14.9	15.0	0.0	0.0	0.0	0.0	14.9	15.0	-0.7
Business and industrial customers (B2B)	21.5	23.7	0.0	0.0	0.4	0.0	21.9	23.7	-7.6
Trade	0.9	1.0	2.4	2.2	96.7	80.1	100.0	83.3	20.0
Total	**37.3**	**39.7**	**2.4**	**2.2**	**97.1**	**80.1**	**136.8**	**122.0**	**12.1**

In the 2018 financial year, electricity sales of the EnBW Group were higher than in the previous year. It was possible to more than compensate for the falling sales in the business and industrial customer sector (B2B) due to the withdrawal from the B2B commodity business under the EnBW and Watt brands through the effects in trade of the full consolidation of VNG-Verbundnetz Gas in the second quarter of 2017 and an increase in trading activity. However, the effect of the trading activities on the earnings potential of the company is limited. In a persistently challenging competitive environment, electricity sales in business with retail and commercial customers (B2C) stood at the same level as in the previous year. Adjusted for the effects of the changes in the consolidated companies, electricity sales of the EnBW Group increased by 10.7%.

Gas sales of the EnBW Group (without Grids)

in billions of kWh	Sales		Renewable Energies		Generation and Trading		Total (without Grids)		Change in %
	2018	2017	2018	2017	2018	2017	2018	2017	
Retail and commercial customers (B2C)	17.1	14.4	0.0	0.0	0.0	0.0	17.1	14.4	18.8
Business and industrial customers (B2B)	39.2	42.6	0.0	0.0	105.3	51.1	144.5	93.7	54.2
Trade	0.2	0.3	0.1	0.0	166.4	141.7	166.7	142.0	17.4
Total	**56.5**	**57.3**	**0.1**	**0.0**	**271.7**	**192.8**	**328.3**	**250.1**	**31.3**

The gas sales of the EnBW Group increased significantly in 2018 compared to the same period of the previous year. Gas sales in the retail customer business (B2C) rose in comparison to the same period of the previous year, which was primarily due to the full consolidation of VNG in the second quarter of 2017 and a slight increase in the number of customers. Sales to business and industrial customers (B2B) also benefited from the full consolidation of VNG although this was offset by the withdrawal from the B2B commodity business under the EnBW and Watt brands. The level of trading activity was higher than in the previous year, which was mainly due to the full consolidation of VNG. However, the effect of the trading activities on the earnings potential of the company is limited. Adjusted for the effects of the changes in the consolidated companies, gas sales of the EnBW Group stood at almost the same level as in the previous year (+0.6%).

External revenue lower than previous year mainly due to first-time application of IFRS 15

External revenue of the EnBW Group by segment

in € million[1]	2018	2017	Change in %
Sales	7,061.4	7,354.3	-4.0
Grids	3,215.4	7,471.8	-57.0
Renewable Energies	477.5	507.5	-5.9
Generation and Trading	9,856.2	6,631.1	48.6
Other/Consolidation	7.0	9.3	-24.7
Total	**20,617.5**	**21,974.0**	**-6.2**

1 After deduction of electricity and energy taxes.

Adjusted for the effects of the changes in the consolidated companies, external revenue fell by 12.9% or €3,048.3 million and was thus significantly lower than in the previous year. This fall is mainly attributable to the first-time application of IFRS 15 and the resulting net disclosure of EEG revenues. Further information can be found in the reporting on IFRS 15 in the notes to the consolidated financial statements (www.enbw.com/report2018-downloads).

Sales: In the 2018 financial year, external revenue in the Sales segment was below the figure in the previous year. Adjusted for the effects of the changes in the consolidated companies, this would have been a fall of 6.1% or €462.2 million. This was mainly due to lower sales volumes as a result of the withdrawal from the B2B commodity business under the EnBW and Watt brands.

Grids: External revenue in the Grids segment fell in 2018 compared to the previous year due to the application of IFRS 15 and the resulting net disclosure of EEG revenues. Adjusted for the effects of the changes in the consolidated companies, this would have been a fall of 57.5% or €4,344.9 million.

Renewable Energies: In the Renewable Energies segment, external revenue in the 2018 financial year was lower than in the previous year. The reason for this development was the fall in revenue caused mainly by lower generation at the offshore wind farms and run-of-river power plants due to the weather conditions. Adjusted for the effects of the changes in the consolidated companies, this would have been a fall of 8.4% or €43.8 million.

Generation and Trading: External revenue in the Generation and Trading segment increased significantly, which was primarily due to the full consolidation of VNG in the second quarter of 2017. In addition, the growth in trading activities contributed to the increase in revenue. Adjusted for the effects of the changes in the consolidated companies, this was an increase in sales of 22.4% or €1,805.0 million.

Material developments in the income statement

Revenue and the cost of materials were 6.2% (revenue) and 8.4% (cost of materials) lower than the levels in the previous year, which was mainly attributable to the application of IFRS 15 and the resulting net disclosure of revenues and the cost of materials. The net disclosures had no effect on the EBITDA. The balance from other operating income and other operating expenses fell from €1,587.2 million in the previous year to €-77.8 million in the reporting year. This decrease was influenced primarily by the reimbursement of the nuclear fuel rod tax (Glossary, p. 154) that was declared to be unconstitutional in June 2017, as well as the sale of 49.89% of the shares in each of EnBW Hohe See GmbH & Co. KG and EnBW Albatros GmbH & Co. KG and the revaluation of the remaining shares in the same period of the previous year. In contrast, the sale of VNG Norge AS and its subsidiary VNG Danmark ApS had a positive effect on earnings in the reporting year. The financial result fell significantly in 2018 in comparison to the previous year by €575.0 million to €-380.4 million (previous year: €194.6 million). This was primarily due to the reimbursement of interest relating to the legal proceedings for the nuclear fuel rod tax, as well as to a higher result from the sale of securities in the previous year. These securities were sold in the previous year in preparation for the payment to the "fund for the financing of the disposal of nuclear waste" (disposal fund). In addition, higher expenses from the market valuation of securities and the drop in the discount rate for nuclear provisions contributed to the fall in earnings. Overall, earnings before tax (EBT) stood at €596.3 million in the 2018 financial year, after €2,857.9 million in the previous year. The complete consolidated financial statements can be found at www.enbw.com/report2018-downloads.

Earnings

The Group net profit/loss attributable to the shareholders of EnBW AG fell from €2,054.1 million in 2017 by €1,719.9 million to €334.2 million in the reporting period. Earnings per share amounted to €1.23 in the 2018 financial year, compared to €7.58 in the previous year.

Adjusted earnings and non-operating result

The sum of the adjusted earnings figures and non-operating figures gives the figures on the income sheet. The non-operating result includes effects that either cannot be predicted or cannot be directly influenced by EnBW and as such are not relevant to the ongoing management of the company. The effects are presented and explained in the section "Non-operating EBITDA".

The business activities relevant to the ongoing management of the company are of particular importance for internal management and for the external communication of the current and future earnings potential of EnBW. We use the adjusted EBITDA – earnings before the investment and financial results, income taxes and amortisation, adjusted for non-operating effects – as the key reporting indicator for disclosing this information.

TOP Adjusted EBITDA and the TOP share of adjusted EBITDA accounted for by the segments

Adjusted EBITDA of the EnBW Group by segment

in € million	2018	2017	Change in %	Forecast 2018
Sales	270.6	330.0	-18.0	-5% to -15%
Grids	1,176.9	1,045.9	12.5	+5% to +15%
Renewable Energies [1]	297.7	331.7	-10.3	-10% to +5%
Generation and Trading	428.6	377.1	13.7	0% to -10%
Other/Consolidation	-16.3	28.3	–	–
Total	**2,157.5**	**2,113.0**	**2.1**	**0% to +5%**

1 The forecast for the Renewable Energies segment was adjusted during the year.

Share of adjusted EBITDA for the EnBW Group accounted for by the segments

in %	2018	2017	Forecast 2018
Sales	12.5	15.6	10% to 15%
Grids	54.5	49.5	45% to 60%
Renewable Energies [1]	13.8	15.7	10% to 15%
Generation and Trading	19.9	17.8	15% to 20%
Other/Consolidation	-0.7	1.4	–
Total	**100.0**	**100.0**	

1 The forecast for the Renewable Energies segment was adjusted during the year.

The adjusted EBITDA for the EnBW Group increased slightly in the 2018 financial year by 2.1% compared to the previous year. The growth in earnings was thus within the forecasted range for the 2018 financial year of between 0% and +5%. Adjusted for the effects of the changes in the consolidated companies, the adjusted EBITDA of the EnBW Group stood at the same level as in the previous year (-0.4%).

Sales: The adjusted EBITDA in the Sales segment decreased in the 2018 financial year by 18.0% in comparison to the previous year. The result was thus below our forecast of -5% to -15%. Adjusted for the effects of the changes in the consolidated companies, the decrease was 21.6%. The elimination of positive out-of-period effects such as the reversal of provisions, which benefited the result in the previous year, had a more significant effect on the adjusted EBITDA than expected. The share of the adjusted EBITDA for the Group accounted for by this segment was in line with our forecast (10% to 15%).

Grids: The adjusted EBITDA for the Grids segment grew in the 2018 financial year within the range of our forecast (+5% to +15%) by 12.5% compared to the previous year. Adjusted for the effects of the changes in the consolidated companies, the increase was 7.7%. The earnings performance in this segment was thus substantially impacted by the full consolidation of VNG in the second quarter of 2017. This development was also due to higher earnings from the use of the electricity grids. The share of the adjusted EBITDA for the Group accounted for by this segment increased in line with our forecast (45% to 60%) compared to the previous year.

Renewable Energies: The adjusted EBITDA in the Renewable Energies segment for the 2018 financial year was 10.3% below the value achieved in the same period of the previous year. The result was thus below our original forecast (+10% to +20%) but at the lower end of our adjusted forecast (-10% to +5%). Adjusted for the effects of the changes in the consolidated companies, the decrease was 11.3%. Poor wind conditions and low water levels had a heavy impact in 2018. The wind yields at our offshore wind farms were thus below the levels in the previous year. The earnings contribution from the run-of-river power plants was also below the level in the previous year. This development could not be offset by the increase in earnings from the onshore wind farms that have been in operation since the middle of 2017. The share of the adjusted EBITDA for the Group accounted for by this segment was in line with our adjusted forecast (10% to 15%) but below our original forecast (15% to 20%).

Generation and Trading: In the Generation and Trading segment, the adjusted EBITDA rose in the 2018 financial year by 13.7% compared to the previous year and was thus above our forecast of 0% to -10%. Adjusted for the effects of the changes in the consolidated companies, the increase was 16.4%. The elimination of the negative impacts in 2017 of the temporary shutdown of Block 2 of the Philippsburg nuclear power plant (KKP 2) due to damaged ventilation system brackets had a positive effect on earnings and compensated for the extension to the inspection of Block 2 of the Neckarwestheim nuclear power plant (GKN II) in 2018 and the negative impact on earnings that the weather conditions had on electricity generation. A positive development in comparison to the forecast was the unexpectedly high out-of-period earnings, which were due to the clarification of open issues relating to electricity procurement agreements. The share of the adjusted EBITDA for the Group accounted for by this segment increased slightly in line with our forecast (15% to 20%) compared to the previous year.

Development of non-operating EBITDA influenced by reimbursement of the nuclear fuel rod tax in previous year

Non-operating EBITDA of the EnBW Group

in € million	2018	2017	Change in %
Income/expenses relating to nuclear power	-132.1	1,278.2	–
Income from the reversals of other provisions	11.8	25.7	-54.1
Result from disposals	89.0	317.8	-72.0
Reversals of/additions to the provisions for onerous contracts relating to electricity procurement agreements	39.2	59.2	-33.8
Income from reversals of impairment losses	22.1	93.1	-76.3
Restructuring	-49.1	-70.0	29.9
Other non-operating result	-48.8	-64.6	-24.5
Non-operating EBITDA	**-67.9**	**1,639.4**	**–**

The non-operating EBITDA and the non-operating EBIT decreased significantly in 2018 compared to the previous year. This was influenced primarily by the reimbursement of the nuclear fuel rod tax, the sale of 49.89% of the shares in each of EnBW Hohe See GmbH & Co. KG and EnBW Albatros GmbH & Co. KG and the revaluation of the remaining shares in the same period of the previous year. In addition, there were reversals of impairment losses on power plants in the previous year. In contrast, the sale of VNG Norge AS and its subsidiary VNG Danmark ApS had a positive effect on earnings in the reporting year.

Fall in Group net profit also influenced by reimbursement of the nuclear fuel rod tax in previous year

Group net profit of the EnBW Group

in € million	2018			2017		
	Total	Non-operating	Adjusted	Total	Non-operating	Adjusted
EBITDA	**2,089.6**	**-67.9**	**2,157.5**	**3,752.4**	**1,639.4**	**2,113.0**
Amortisation and depreciation	-1,213.8	-13.8	-1,200.0	-1,248.4	-134.2	-1,114.2
EBIT	**875.8**	**-81.7**	**957.5**	**2,504.0**	**1,505.2**	**998.8**
Investment result	100.9	-50.6	151.5	159.3	4.1	155.2
Financial result	-380.4	-18.6	-361.8	194.6	244.6	-50.0
EBT	**596.3**	**-150.9**	**747.2**	**2,857.9**	**1,753.9**	**1,104.0**
Income tax	-128.7	51.9	-180.6	-681.6	-509.5	-172.1
Group net profit/loss	**467.6**	**-99.0**	**566.6**	**2,176.3**	**1,244.4**	**931.9**
of which profit/loss shares attributable to non-controlling interests	(133.4)	(5.1)	(128.3)	(122.2)	(-16.4)	(138.6)
of which profit/loss shares attributable to the shareholders of EnBW AG	(334.2)	(-104.1)	(438.3)	(2,054.1)	(1,260.8)	(793.3)

The fall in the investment result was mainly attributable to an impairment of our Turkish investment in the reporting period. The significant decrease in the financial result in comparison to the previous year was primarily due to the reimbursement of interest relating to the legal proceedings for the nuclear fuel rod tax (Glossary, p. 154), as well as to a higher result from the sale of securities in the previous year. These securities were sold in the previous year in preparation for the payment to the "fund for the financing of the disposal of nuclear waste" (disposal fund). The EBT stood at €596.3 million and was thus below our expectations of between €800 million and €900 million. The main reasons for this deviation from the forecast were valuation effects from derivatives and the development of the discount rate for nuclear provisions.

Financial position

Financial management of EnBW

Basis and objectives

Financial management is responsible for securing the existing financial assets of the EnBW Group and their development, for the optimisation of financing, as well as for guaranteeing a sufficient level of liquidity reserves. This ensures that the Group is able to meet its payment obligations at all times without restriction. The treasury guidelines (Glossary, p. 155) of the EnBW Group define the financial transactions permitted by the Board of Management of EnBW and the specified scope within which they may be carried out. The guidelines are applicable to all companies that are either consolidated in full or with which EnBW AG has a profit and loss transfer agreement. The guidelines also act as basic principles for all other companies. The centralised financial management system serves to minimise risks, provide transparency and optimise costs.

In the operating business, derivatives (Glossary, p. 153) are generally deployed for hedging purposes only: for example, for forward contracts for electricity and primary energy source trading. This also applies for foreign exchange and interest rate derivatives. Propriety trading is only permitted within narrow, clearly defined limits.

Another important aspect of financial management is to manage financial assets (asset management) in order to cover the corresponding pension and nuclear obligations.

Treasury

In general, the treasury (Glossary, p. 155) controls all processes in all companies that are consolidated in full, or with which EnBW AG has a profit and loss transfer agreement. Liquidity management is based on a system-aided rolling liquidity planning for the scope of validity defined above. The treasury is also responsible for the central management of credit lines and bank guarantees, the issuing of guarantees and letters of comfort, as well as interest rate risk and currency management.

Interest rate risk and currency management

Interest rate risk and currency management involves the management and monitoring of interest-bearing and interest-sensitive assets and liabilities. The consolidated companies regularly report on the existing risk position via the system-aided rolling liquidity planning. An interest rate risk strategy is devised based on an analysis conducted every quarter on an aggregated basis. The purpose is to limit the impact of fluctuations in interest rates and interest rate risks on the results of operations and net assets.

The interest rates on the financial liabilities of the EnBW Group are predominantly fixed. We use interest rate derivatives to keep the relationship between fixed and variable interest rates within predefined limits in order to optimise the interest earnings of EnBW. The potential risk is determined on the basis of current interest rates and possible changes in these interest rates.

Generally, currency positions resulting from operations are closed by appropriate forward exchange contracts. Overall, currency fluctuations from operating activities do not have any major effect on the operating result of EnBW. Foreign exchange risks are monitored on a case-by-case basis within the frame–work of the currency management system. Details on the risk management system are presented in note 24 of the notes to the consolidated financial statements at www.enbw.com/report2018-downloads.

Asset management

Our aim is to cover the Group's pension and nuclear provisions within an economically feasible period of time by means of appropriate financial assets. EnBW uses an asset liability management model (ALM model) (Glossary, p. 152) based on cash flows to determine the effects on the balance sheet, income statement and cash flow statement over the next 30 years. Alongside the anticipated return on financial assets, the actuarial valuations of pension provisions and sector-specific appraisals by external experts on costs for nuclear decommissioning and disposal are taken into account. The aim of this model is to limit the impact the utilisation of the pension and nuclear obligations may have on the operating business. Accordingly, funds are also taken from the financial assets for this purpose. This model also allows simulations of various alternative scenarios. As of 31 December 2018, the dedicated financial assets (Glossary, p. 152) for pension and nuclear provisions totalled €6,279.8 million (previous year adjusted: €6,273.9 million). Alongside the dedicated financial assets, there are plan assets to cover certain pension obligations with a market value of €987.8 million as of 31 December 2018 (previous year adjusted: €1,047.3 million).

We strive to reach the defined investment targets with minimum risk. We also further optimised the risk/return profile of the financial assets in 2018. The main part of the dedicated financial assets is distributed as investments across nine asset classes. The financial assets are bundled in two master funds with the following investment targets:

- Risk-optimised investments, with a performance in line with market trends
- Consideration of the effects on the balance sheet and income statement
- Broad diversification of the asset classes
- Reduction of costs and simplification of administrative processes

Financing facilities

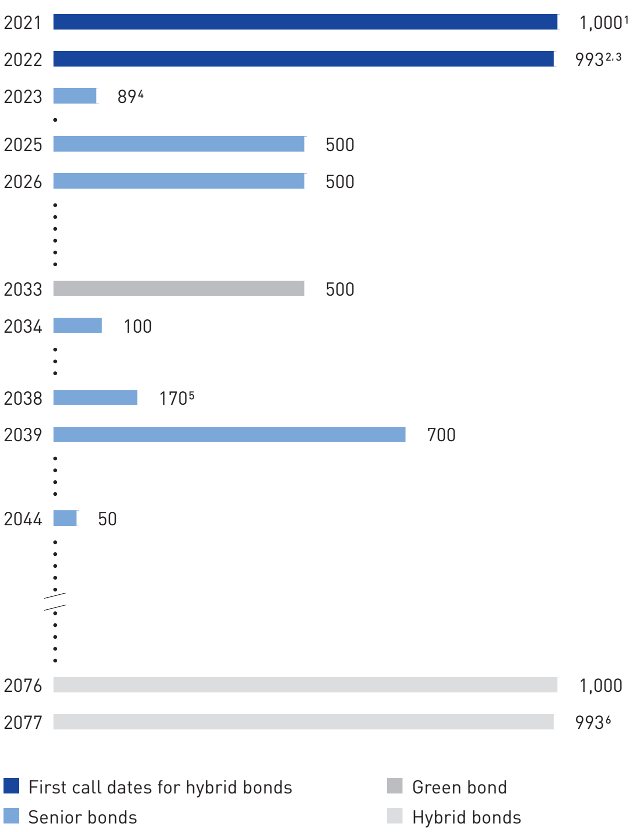
In addition to the Group's internal financing capabilities from the adjusted retained cash flow of €1,199.1 million in 2018 (previous year: €1,529.5 million) and its own funds, the EnBW Group had the following instruments at its disposal to cover its overall financing needs (as of 31 December 2018):

- Debt Issuance Programme (DIP, Glossary, p. 152), via which bonds are issued: €2.6 billion of €7.0 billion has been drawn
- Hybrid bonds: €2.0 billion
- Commercial paper (CP) programme (Glossary, p. 152): €0.3 billion of €2.0 billion has been drawn
- Syndicated credit line: €1.5 billion undrawn with a term until 2021
- Bilateral free credit lines: €1.1 billion
- Project financing and low-interest loans from the European Investment Bank (EIB)

Established issuer on the debt capital market
EnBW has sufficient and flexible access to the capital market at all times. The EnBW bonds continue to have a well-balanced maturity profile. As part of its financing strategy, EnBW constantly assesses capital market trends with regard to the current interest rate environment and to any potentially favourable refinancing costs.

The CHF 100 million bond that was due for repayment was repaid on 12 July 2018. A senior bond with a volume of €750 million that was due for repayment on 20 November was also repaid. No refinancing was required in either case.

Maturity profile of EnBW bonds
in € million



1 First call date: hybrid maturing in 2076.
2 First call date: hybrid maturing in 2077.
3 Includes US$300 million, coupon before swap 5.125%.
4 CHF 100 million, converted in € as of 31/12/2018.
5 JPY 20 billion (swap in €), coupon before swap 3.880%.
6 Includes US$300 million, converted in € at rate of 05/10/2016.

Documentation of short-term and long-term borrowings on the capital market under the established DIP and CP programmes of EnBW, as well as all other credit documentation with banks (e.g. syndicated lines of credit) includes internationally standardised clauses. The issuing of a negative pledge, as well as a pari passu clause (Glossary, p. 154), to all creditors forms a key element of the financing policy of EnBW. The use of undrawn credit lines is not subject to restrictions.

Details on financial liabilities are presented in note 21 and explanations on other financial commitments are presented in note 25 of the notes to the consolidated financial statements at www.enbw.com/report2018-downloads.

Green bond issued by EnBW *
EnBW published its Green Financing Framework on 17 October 2018 and issued its first green bond (Glossary, p. 153) with a volume of €500 million on 31 October 2018. The bond has a coupon of 1.875% and a term of 15 years. In contrast to conventional corporate bonds, the proceeds from a green bond must be used exclusively to finance climate-friendly projects. 93% of the proceeds from the first green bond issued by EnBW will be allocated to wind power projects, while 5% will be used for photovoltaic projects and 2% for electromobility projects. This form of financing is thus in line with the corporate strategy of repositioning the business portfolio with a focus on renewable energies and smart infrastructure solutions.

Use of the funds from the green bond for renewable energies

	Use of funds in € million	Emissions avoided t CO_2eq [1]
Offshore wind	227.45	–[2]
Onshore wind	234.42	170,818
Photovoltaics	26.50	14,032
Total for renewable energies	**488.37**	**184,850**

1 Source: German Environment Agency: Emission Balance of Renewable Energy Sources in 2017 (as of October 2018)
2 Projects still under construction.

Use of the funds from the green bond for electromobility

	Use of funds in € million	Number of locations	Number of charging processes
Expansion of quick-charging infrastructure	8.05	123[1]	38,327
Total	**496.42**		

1 89 locations on Germany's motorways.

* The information on the green bond issued by EnBW is not part of the audited management report.

Allocation of the green bond

	Use of funds in € million	Net proceeds in € million	Allocation of funds in %
Green bond (XS1901055472)	496.42	496.42	100.0

Through sustainable finance, companies support the stability and future viability of financial markets and make an important contribution to financing global transformation processes. The activities of EnBW in the area of sustainable finance underline the fact that the company takes into account the social and ecological impacts of its business activities in the development of business models and specifically examines the medium and long-term opportunities and risks involved. As well as financial performance indicators, the company thus also uses sustainability indicators as a basis for taking capital expenditure and investment decisions.

Further information on the green bond, including its contribution to the non-financial key performance indicators of EnBW and to the selected sustainability goals of the United Nations (United Nations Sustainable Development Goals (SDGs) – SDG 7 (affordable and clean energy), SDG 9 (industry, innovation and infrastructure), SDG 11 (sustainable cities and communities), SDG 13 (climate action), can be found at www.enbw.com/green-bond.

Rating and rating trends

EnBW aims to maintain a solid investment-grade rating (Glossary, p. 154). By limiting the cash-relevant net investment to the adjusted retained cash flow, measured by the internal financing capability, EnBW manages the level of net financial debt. The company thus maintains its high level of financial discipline, irrespective of the interest rate-related volatility of the pension and nuclear provisions (p. 72). EnBW ensures the timely coverage of the pension and nuclear obligations (p. 84) using an asset liability management model (Glossary, p. 152). The impact that the utilisation of the pension and nuclear obligations may have on the operating business is limited to €300 million (plus an inflation supplement) a year using an ongoing contribution from the financial assets. If the provisions are fully covered by the financial assets, no further funds will be taken from operating cash flow as part of the model.

With a solid investment-grade rating (Glossary, p. 154), we want to:

- ensure unrestricted access to capital markets
- offer reliable opportunities for financing partners
- be regarded as a dependable business partner in our trading activities
- achieve the lowest possible capital costs
- implement an appropriate number of investment projects and thereby maintain the future viability of the company

Overview of the ratings for EnBW – rating/outlook

	2018	2017	2016	2015	2014
Moody's	A3/stable	Baa1/stable	A3/negative	A3/negative	A3/negative
Standard & Poor's	A-/stable	A-/stable	A-/negative	A-/stable	A-/stable
Fitch	A-/stable	A-/stable	A-/stable	A-/stable	A-/stable

The rating agency Moody's re-evaluated EnBW in June 2018 and upgraded its rating from Baa1 to A3. EnBW has thus now received A-grade ratings from all three rating agencies. The reason given by Moody's for the upgrade was above all the high financial discipline of EnBW, especially with regards to the reduction in net debt that was achieved more quickly than expected and the financing of growth investment using its internal financing capability. The increasing proportion of low-risk activities in the regulated grid business and the expertise acquired by EnBW in the area of renewable energies over the past few years were also positively evaluated. Moody's anticipates that EnBW will continue to rigorously implement its 2020 strategy. In its regular update on 24 July 2018, Standard & Poor's (S&P) confirmed its EnBW rating of A- with a stable outlook. Fitch also confirmed its EnBW rating of A-/ stable on 28 September 2018.

Assessment by the rating agencies

Moody's (12/06/2018)	Standard & Poor's (24/07/2018)	Fitch (28/09/2018)
Leadership position as a vertically integrated utility within Baden-Württemberg	Solid regional competitive position and increasing foothold in national gas distribution	Continued evolution towards a more regulated and contracted business profile
Around 50% of EBITDA from low risk regulated distribution and transmission activities and growing share of renewables under contracts, as EnBW continues to invest in line with its 2020 strategy	Increased share of operating income from the segments Grids and Renewable Energies, but still significant exposure to volatile and commodity-driven wholesale power prices	High earnings visibility in grids and renewables partly offset by residual nuclear decommissioning risk; payment of €4.8 billion for transferring responsibility for nuclear waste storage has substantially reduced these risk
Difficult operating environment in Germany for conventional generation and increasingly challenging environment in retail markets	Considerable progress made in business repositioning strategy	Average forecast credit metrics are generally stronger than peers, with some exceptions with respect to funds from operations (FFO) fixed charge cover
Certain execution risks relating to a large investment programme	Well managed funding of nuclear waste-related liabilities, without major disruptions to its strategy or changes to the capital structure	If the share of regulated EBITDA exceeds 50% on a sustained basis, Fitch may apply a one-notch uplift to the senior unsecured rating
Balanced financial policies and track record in implementing measures to shore up its financial profile	Prudent financial policy underpinned by utilization of nuclear tax refund for capex and deleveraging	
Strong support due to stable shareholder structure		

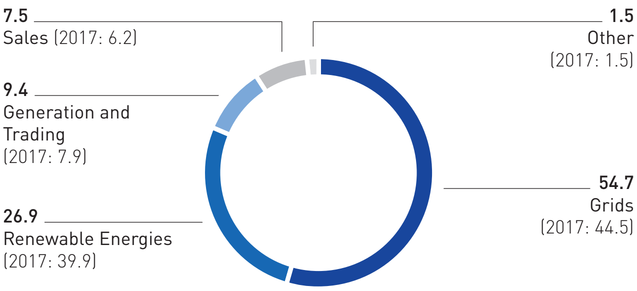
Investment analysis

Net cash investment of the EnBW Group

in € million[1]	2018	2017	Change in %
Investments in growth projects[2,3]	1,323.9	1,324.2	0.0
Investments in existing projects	446.0	446.1	0.0
Total investments	**1,769.9**	**1,770.3**	**0.0**
Divestitures[4]	-371.3	-298.5	24.4
Participation models	51.9	61.9	-16.2
Other disposals and subsidies	-163.4	-166.6	-1.9
Total divestitures	**-482.8**	**-403.2**	**19.7**
Net (cash) investment	**1,287.1**	**1,367.1**	**-5.9**

1 Excluding investments held as financial assets.
2 Does not include cash and cash equivalents acquired with the acquisition of fully consolidated companies. These amounted to €0.4 million in the reporting period (previous year: €0.0 million).
3 In the same period of the previous year, this included cash and cash equivalents of €51.0 million relinquished with the sale of the shares in EnBW Hohe See GmbH & Co. KG and cash and cash equivalents of €6.8 million relinquished with the sale of the shares in EnBW Albatros GmbH & Co. KG, because they will be used for future investments for the realisation of both offshore wind farms.
4 Does not include cash and cash equivalents relinquished with the sale of fully consolidated companies. These amounted to €61.5 million in the reporting period (previous year: €57.8 million).

Investment by segment
in %



Investment by the EnBW Group in 2018 was at the same level as in the previous year. In particular, capital expenditure on property, plant and equipment in the Grids segment increased, while it decreased in the Renewable Energies segment. Around 74.8% of overall gross investment was attributable to growth projects; the proportion of investments in existing facilities stood at 25.2%.

In the reporting year, €132.4 million was invested in strengthening the **Sales** segment. Investment in this segment was thus slightly above the level in the previous year (€110.6 million).

Investment in the **Grids** segment stood at €967.4 million, compared to €787.5 million in the previous year. It was primarily used for the expansion of the electricity grids. The increase in comparison to the previous year was primarily due to the construction of the EUGAL gas pipeline and investment in the areas of electromobility and smart grids.

Investment in the **Renewable Energies** segment of €476.0 million was lower than the figure in the previous year (previous year: €706.4 million). The reason for this development was the strong expansion of onshore wind power plants in 2017. In 2018, onshore wind farms were acquired, in particular, in Sweden.

Investment in the **Generation and Trading** segment stood at €166.5 million in 2018. In the same period of the previous year, investment in this segment stood at €140.2 million. The main reasons for this increase were investment in the exploration and production business of VNG and the modernisation of the combined heat and power plant in Stuttgart-Gaisburg – including switching the fuel over to gas – to guarantee the supply of district heating for the greater Stuttgart area.

Other investments of €27.6 million were slightly above the level in the previous year (€25.6 million).

Divestitures were higher than the level in the previous year.

Divestitures increased in 2018 compared to the same period of the previous year. This was primarily due to the sale of VNG Norge AS and its subsidiary VNG Danmark ApS. In the previous year, they mainly included the sale of 49.89% of the shares in each of EnBW Hohe See GmbH & Co. KG and EnBW Albatros GmbH & Co. KG.

The divestitures from participation models mainly contain payments due to capital reductions in non-controlling interests of €51.8 million (previous year: €55.0 million).

Other disposals and subsidies were at the same level as in the previous year.

Capital commitments for the acquisition of intangible assets and property, plant and equipment amounted to €1,142.7 million as of 31 December 2018 (previous year: €829.1 million). Commitments for the acquisition of companies totalled €476.1 million (previous year: €454.1 million). The capital commitments will be financed from the adjusted retained cash flow in subsequent years.

Investment decisions will take climate goals into account to a greater extent in the future. In this context, the investment guidelines have been adapted in the 2018 financial year: For significant investment projects, their influence on the environmental and climate protection targets and figures – in the sense of the TCFD recommendations (Glossary, p. 155) – will be illustrated in the future. This additional information will act as the basis for approval by the investment committee of the Board of Management.

Liquidity analysis

Retained cash flow of the EnBW Group

in € million	2018	2017	Change in %
EBITDA	**2,089.6**	**3,752.4**	**-44.3**
Changes in provisions	-394.6	-472.3	-16.5
Non-cash-relevant expenses/income	-116.0	-385.9	-69.9
Income tax paid/received	-270.7	81.1	–
Interest and dividends received	284.6	591.7	-51.9
Interest paid for financing activities	-247.0	-425.6	-42.0
Dedicated financial assets contribution	-34.0	-6.4	–
Funds from operations (FFO)	**1,311.9**	**3,135.0**	**-58.2**
Dividends paid	-312.8	-84.7	–
Retained cash flow	**999.1**	**3,050.3**	**-67.2**

Funds from operations (FFO) fell by more than half in comparison to the previous year. This fall was primarily attributable to the reimbursement of the nuclear fuel rod tax in 2017 (Glossary, p. 154). In addition, there were income tax payments in the reporting year compared to income tax refunds in the previous year. Furthermore, interest and dividends received fell.

The lower FFO and higher dividends paid in 2018 thus led to a decrease in the retained cash flow.

The retained cash flow reflects the internal financing capability of EnBW after all stakeholder needs have been settled. It is available to the company for investment without the need to raise additional debt.

Internal financing capability of the EnBW Group

	2018	2017	Change in %
Adjusted retained cash flow in € million [1]	1,199.1	1,529.5	-21.6
Net (cash) investment in € million	1,287.1	1,367.1	-5.9
Internal financing capability in %	**93.2**	**111.9**	**-16.7**

1 Adjusted for the effects from the reimbursement of the nuclear fuel rod tax by €200.0 million (previous year: €-1,520.8 million).

We have translated the retained cash flow into the adjusted retained cash flow, which eliminates the reimbursement of the nuclear fuel rod tax. In the 2017 financial year, this led to a reduction in adjusted retained cash flow compared to retained cash flow and will lead to an increase of €685.0 million in the period from 2018 to 2020 (nuclear fuel rod tax adjusted for the debt repayment). The reimbursement of the nuclear fuel rod tax of €1,520.8 million in the 2017 financial year was used by EnBW for the debt repayment in 2018 of €835.8 million and for investments in the amount of €200.0 million. We anticipate that the remaining amount will be distributed on a straight line basis in the period 2019 to 2020.

Due to the decrease in adjusted retained cash flow in the reporting year compared to 2017 and only a slight decrease in net investment compared to the previous year, the internal financing capability fell. As a result of one-time tax payments, the adjusted retained cash flow was below the forecasted level, which meant that the value for internal financing capability was slightly below the target value of ≥ 100% in the reporting year.

The internal financing capability is the key performance indicator for the Group's ability to finance its activities internally.

Free cash flow of the EnBW Group

in € million	2018	2017	Change in %
Funds from operations (FFO)	**1,311.9**	**3,135.0**	**-58.2**
Change in assets and liabilities from operating activities	-480.7	-4,671.4	-89.7
Capital expenditure on intangible assets and property, plant and equipment	-1,369.5	-1,419.2	-3.5
Disposals of intangible assets and property, plant and equipment	77.3	52.8	46.4
Cash received from subsidies for construction costs and investments, and tax refunds from recognised exploration expenditure	86.1	113.8	-24.3
Free cash flow	**-374.9**	**-2,789.0**	**-86.6**

Free cash flow increased significantly compared to the same period of the previous year by €2,414.1 million. The considerable decrease in FFO was more than compensated for by the clear reduction in the net balance of assets and liabilities from operating activities. In the comparative period, this item included the payment to the disposal fund.

Condensed cash flow statement of the EnBW Group

in € million	2018	2017	Change in %
Cash flow from operating activities	827.6	-1,696.1	–
Cash flow from investing activities	-895.8	2,160.7	–
Cash flow from financing activities	-907.3	-1,541.3	41.1
Net change in cash and cash equivalents	**-975.5**	**-1,076.7**	**9.4**
Change in cash and cash equivalents due to changes in the consolidated companies	6.6	300.3	-97.8
Net foreign exchange difference	5.5	-1.9	–
Risk provisions	0.2	0.0	–
Change in cash and cash equivalents	**-963.2**	**-778.3**	**23.8**

The substantial increase in cash flow from operating activities in comparison to the previous year was mainly due to the two effects from the previous year of the reimbursement of the nuclear fuel rod tax and the payment to the disposal fund. In addition, there were income tax payments in the reporting year compared to income tax refunds in the previous year.

In 2018, cash flow from investing activities returned an outflow of cash, while there was a significantly higher inflow of cash in the previous year. This inflow of cash in the previous year was due primarily to higher sales of securities to finance the payment made to the disposal fund in July 2017.

The cash outflow from financing activities decreased significantly in comparison to the previous year: A hybrid bond was repaid in 2017; in 2018 the green bond was issued and the commercial paper (CP) programme (Glossary, p. 152) was utilised, while in contrast there were planned repayments on two bonds and dividends were once again distributed to the shareholders of EnBW AG.

The solvency of the EnBW Group was ensured at all times throughout the 2018 financial year thanks to the company's available liquidity and its internal financing capability, as well as external sources available for financing. The company's future solvency is secured by its solid financial position (p. 84 ff.).

Net assets

Condensed balance sheet of the EnBW Group

in € million	31/12/2018	31/12/2017	Change in %
Assets			
Non-current assets	26,746.0	26,766.6	-0.1
of which intangible assets	(1,748.7)	(1,905.9)	-8.2
of which property, plant and equipment	(15,867.5)	(15,597.4)	1.7
of which entities accounted for using the equity method	(1,600.2)	(1,388.6)	15.2
of which other financial assets	(5,426.5)	(5,985.7)	-9.3
of which deferred taxes	(1,059.3)	(956.4)	10.8
Current assets	12,520.7	12,015.3	4.2
Assets held for sale	342.3	3.0	–
	39,609.0	**38,784.9**	**2.1**
Equity and liabilities			
Equity	6,273.3	5,862.9	7.0
Non-current liabilities	22,036.9	21,919.7	0.5
of which provisions	(13,246.0)	(13,124.5)	0.9
of which deferred taxes	(774.8)	(799.4)	-3.1
of which financial liabilities	(6,341.4)	(5,952.0)	6.5
Current liabilities	11,277.6	11,002.3	2.5
of which provisions	(1,549.9)	(1,598.7)	-3.1
of which financial liabilities	(654.8)	(1,306.8)	-49.9
Liabilities directly associated with assets classified as held for sale	21.2	0.0	–
	39,609.0	**38,784.9**	**2.1**

As of 31 December 2018, the total assets held by the EnBW Group were 2.1% higher than the level at the end of the previous year. Non-current assets were only slightly below the level in the previous year. The increase in property, plant and equipment is due to capital expenditure, which was offset to some extent by ongoing impairments. The increase in entities accounted for using the equity method was mainly the result of a capital increase. The fall in other financial assets was due to the securities. This was primarily attributable to the reclassification of the 6% shareholding in EWE as assets held for sale and a reclassification due to a change in maturity. Current assets increased by €505.4 million, which was mainly due to an increase in derivatives. In addition, the rise in current assets was also contributed to by the increase in securities because of reclassifications due to changes in maturity and an increase in gas stocks. In contrast, cash and cash equivalents fell, which was mainly attributable to cash payments for investments. The increase in assets held for sale by €339.3 million was primarily attributable to the 6% of the shares in EWE, which were reclassified due to EnBW's right from 1 July 2019 to sell the shares to EWE Verband with an associated obligation for EWE Verband to purchase them.

The equity held by the EnBW Group increased by €410.4 million as of the reporting date of 31 December 2018. This was due mainly to the increase in revenue reserves as a result of the first-time application of the new IFRS standards. This was compensated for to some extent by the lower earnings compared to the previous year. The first-time application of IFRS 9 also led to a fall in other comprehensive income. The equity ratio increased from 15.1% at the end of 2017 to 15.8% on the reporting date as a result. Non-current liabilities increased by

€117.2 million. The increase in financial liabilities was primarily due to the issuing of the green bond. Other liabilities and subsidies fell due to the first-time application of IFRS 15 in the 2018 financial year. In contrast, the derivatives increased. Current liabilities increased by €275.3 million, driven by the derivatives. The decrease in financial liabilities is due to repayments on two bonds. This was offset to some extent by short-term financing on the capital market under the commercial paper (CP) programme (Glossary, p. 152) in the amount of €250 million as of 31 December 2018.

Net debt

As of 31 December 2018, net debt increased significantly by €1,168.3 million compared to the figure posted at the end of 2017. Net financial debt increased by €820.6 million, which was due to the payments for initial margins, filling the gas stores at the end of the year and the investment expenditure which, excluding the effect from the nuclear fuel rod tax, totalled more than the income from the retained cash flow. The increase in net debt relating to pension and nuclear obligations was primarily due to a rise in the rate of increase in prices from 1.7% to 2.4% and the fall in the discount rate for the nuclear provisions from 0.72% to 0.59%. Updating the Heubeck tables with respect to assumptions about average life expectancies also had a negative effect on the pension provisions.

The coverage ratio (Glossary, p. 152) describes the dedicated financial assets (Glossary, p. 152) in relation to the net pension and nuclear obligations. As of 31 December 2018, this ratio stood at 51.8%, which was around the same level as in the previous year (adjusted: 53.3%). Within the scope of its ALM model (Glossary, p. 152), EnBW is still in a position to cover its future cash outflows for pension and nuclear provisions without burdening the cash flow from operating activities to an above-average extent.

Net debt of the EnBW Group

in € million [1]	31/12/2018	31/12/2017	Change in %
Cash and cash equivalents available to the operating business	-1,954.0	-2,954.7	-33.9
Current financial assets available to the operating business	-200.6	-277.0	-27.6
Long-term securities available to the operating business	0.0	-4.3	-100.0
Bonds	4,869.4	4,934.3	-1.3
Liabilities to banks	1,482.8	1,705.6	-13.1
Other financial liabilities	644.0	618.9	4.1
Valuation effects from interest-induced hedging transactions	-88.8	-96.4	-7.9
Restatement of 50% of the nominal amount of the hybrid bonds [2]	-996.3	-996.3	0.0
Other	-18.1	-12.3	47.2
Net financial debt	**3,738.4**	**2,917.8**	**28.1**
Provisions for pensions and similar obligations [3]	6,550.9	6,341.2	3.3
Provisions relating to nuclear power	5,848.2	5,802.7	0.8
Liabilities relating to nuclear power	63.3	0.0	–
Receivables relating to nuclear obligations	-334.4	-369.5	-9.5
Net pension and nuclear obligations	**12,128.0**	**11,774.4**	**3.0**
Long-term securities and loans to cover the pension and nuclear obligations [4]	-4,864.4	-5,487.6	-11.4
Cash and cash equivalents to cover the pension and nuclear obligations	-295.4	-258.6	14.2
Current financial assets to cover the pension and nuclear obligations	-569.1	-307.2	85.3
Surplus cover from benefit entitlements	-208.8	-179.3	16.5
Long-term securities to cover the pension and nuclear obligations directly associated with assets classified as held for sale	-298.9	0.0	–
Other	-43.2	-41.2	4.9
Dedicated financial assets	**-6,279.8**	**-6,273.9**	**0.1**
Net debt relating to pension and nuclear obligations	**5,848.2**	**5,500.5**	**6.3**
Net debt	**9,586.6**	**8,418.3**	**13.9**

1 The figures for the previous year have been restated.
2 The structural characteristics of our hybrid bonds meet the criteria for half of the bond to be classified as equity, and half as debt, by the rating agencies Moody's and Standard & Poor's.
3 Less the market value of the plan assets of €987.8 million (31/12/2017: €1,047.3 million).
4 Includes equity investments held as financial assets.

TOP ROCE and value added

The cost of capital before tax represents the minimum return on average capital employed (calculated on the basis of the respective quarterly figures for the reporting year and the year-end figure for the previous year). Positive value is added when the return on capital employed (ROCE) exceeds the cost of capital. The cost of capital is determined based on the weighted average cost of equity and debt together. The value of equity is based here on a market valuation and thus deviates from the value recognised in the balance sheet. The cost of equity is based on the return of a risk-free investment and a company-specific risk premium. The latter is calculated as the difference between a risk-free investment and the return for the overall market, weighted with a company-specific business field risk. The terms according to which the EnBW Group can raise long-term debt are used to determine the cost of debt.

There are various factors that influence value added. The level of ROCE and value added depend not only on the development of the operating result but above all on the invested capital. Large-scale investments tend to significantly increase the capital employed in the early years, while the effect on income that boosts value, however, only filters through over a lengthier period of time, often long after the investments were initially made. This is especially true of capital expenditure on property, plant and equipment relating to the construction of new power plants, which do not have any positive effect on the operating result of the Group until after they are commissioned. Capital expenditure on power plants, on the other hand, is already taken into account in the capital employed during the construction phase. In a comparison of individual years, the development of ROCE and value added is, to a certain extent, cyclical in nature, depending on the investment volume. This effect is therefore inherent in the system and results in lower ROCE in phases of strong growth or phases of investment.

Value added to the EnBW Group for 2018 by segment

	Sales	Grids	Renewable Energies	Generation and Trading	Other/ Consolidation	Total
Adjusted EBIT including the adjusted investment result[1] in € million	220.3	768.4	123.7	-24.2	-46.6	1,041.6
Average capital employed in € million	1,037.0	7,019.8	3,667.4	2,139.1	2,190.0	16,053.3
ROCE in %	**21.2**	**10.9**	**3.4**	**-1.1**	**–**	**6.5**
Weighted average cost of capital before tax in %	7.7	5.3	6.1	8.0	–	6.3
Value added in € million	**140.0**	**393.1**	**-99.0**	**-194.7**	**–**	**32.1**

1 Investment result of €59.4 million, adjusted for taxes (investment result/0.706 - investment result; with 0.706 = 1 - tax rate 29.4%). Does not include impairment losses and reversals to impairment losses on investments, the result from the sale of equity investments, the share of the result from entities accounted for using the equity method not relevant to the ongoing management of the company and the result from equity investments held as financial assets.

Value added to the EnBW Group for 2017 by segment[1]

	Sales	Grids	Renewable Energies	Generation and Trading	Other/ Consolidation	Total
Adjusted EBIT including the adjusted investment result[2] in € million	262.8	686.8	164.9	-27.0	21.2	1,108.7
Average capital employed in € million	836.8	5,919.2	3,276.9	2,242.4	2,844.6	15,119.9
ROCE in %	**31.4**	**11.6**	**5.0**	**-1.2**	**–**	**7.3**
Weighted average cost of capital before tax in %	7.7	5.4	6.1	8.0	–	6.3
Value added in € million	**198.3**	**367.0**	**-36.0**	**-206.3**	**–**	**151.2**

1 The figures for the previous year have been restated.
2 Investment result of €77.6 million, adjusted for taxes (investment result/0.706 - investment result; with 0.706 = 1 - tax rate 29.4%). Does not include impairment losses and reversals to impairment losses on investments, the result from the sale of equity investments, the share of the result from entities accounted for using the equity method not relevant to the ongoing management of the company and the result from equity investments held as financial assets.

The value added generated by the EnBW Group fell in the 2018 financial year compared to the previous year to €32.1 million. The adjusted EBIT including the adjusted investment result fell slightly, while the average capital employed rose. The risk-adjusted weighted average cost of capital remained unchanged compared to the previous year at 6.3%. The ROCE of 6.5% was within the range of our forecast for the 2018 financial year (forecast 2018: 6.3% to 7.0%).

Sales: Value added in the Sales segment decreased in 2018 by €58.3 million. This was mainly because of the increase in average capital employed due to, amongst other things, the full year consolidation of VNG and investment in the solutions and contracting business. In addition, the lower adjusted EBIT including the adjusted investment result contributed to the fall in value added.

Grids: Value added in the Grids segment increased slightly to €393.1 million in comparison to 2017. Both the adjusted EBIT including the adjusted investment result and also the capital employed were above the figures in the previous year. The substantial increase in capital employed was primarily attributable to the full year consolidation of VNG and investment in the transmission and distribution grids.

Renewable energies: Value added in the Renewable Energies segment fell in comparison to the previous year to €-99.0 million. The adjusted EBIT including the adjusted investment result decreased to €123.7 million. In contrast, investments in the expansion of onshore and offshore wind power led to an increase in the capital base in the reporting year, as was also the case in 2017.

Generation and Trading: Value added in the Generation and Trading segment was slightly above the level in 2017 at €-194.7 million. This was due, on the one hand, to the slight increase in adjusted EBIT including the adjusted investment result, and on the other hand, to the average capital employed in the reporting year remaining at approximately the same level as in the previous year.

Performance indicators relevant to remuneration

The performance indicators relevant to remuneration are derived as follows:

EBT relevant to remuneration

in € million	2018	2017
EBT	**596.3**	**2,857.9**
Less outstanding items for derivatives allocated under trading within EBITDA	-4.1	-12.9
Less the measurement of financial assets and outstanding items for derivatives allocated under trading within the financial result	38.8	-34.2
EBT relevant to remuneration	**631.0**	**2,810.8**
Less changes to the inflation rate and discount rate for nuclear provisions	133.3	–
EBT relevant to remuneration according to the new regulations	**764.3**	**–**

Funds from operations (FFO) relevant to remuneration

in € million	2018	2017
Funds from operations (FFO)	**1,311.9**	**3,135.0**
Less income tax paid/received	270.7	-81.1
Funds from operations (FFO) relevant to remuneration	**1,582.6**	**3,053.9**

Intangible assets and property, plant and equipment (net) relevant to remuneration

in € million	2018	2017
Intangible assets	1,748.7	1,905.9
Property, plant and equipment	15,867.5	15,597.4
Investment properties	31.6	50.3
Investment cost subsidies	-7.7	-8.5
Construction cost subsidies	-876.8	-1,383.6
Intangible assets and property, plant and equipment (net)	**16,763.3**	**16,161.5**
Average intangible assets and property, plant and equipment (net) [1]	**16,371.6**	**15,113.9**

1 Average calculation based on the respective quarterly values for the reporting year and the previous year.

ROA (return on assets) relevant to remuneration

in € million	2018	2017
EBIT	**875.8**	**2,504.0**
Less outstanding items for derivatives allocated under trading within EBITDA	-4.1	-12.9
EBIT relevant to remuneration	**871.7**	**2,491.1**
Average intangible assets and property, plant and equipment (net)	16,371.6	15,113.9
ROA (return on assets) relevant to remuneration in %	**5.3**	**16.5**

The remuneration of the members of the Board of Management is described in full in the remuneration report (p. 124 ff.).

Customers and society goal dimension

Reputation

A strong reputation is an important factor for the sustainable success of a company. The good social reputation of a company reflects the trust placed by the general public and relevant stakeholders in the competent and responsible actions of a company.

Especially for companies in the energy industry, which is undergoing a period of fundamental change, this social acceptance is vitally important. A good reputation signals the willingness of society and its different stakeholder groups to cooperate with and invest in the company.

EnBW aims to continuously improve its reputation. The focal point of this concept is the stakeholder team, consisting of representatives from all important areas of the company, that was established in 2017. The stakeholder team directly or indirectly communicates and maintains dialogue with relevant stakeholder groups.

TOP Reputation Index

Reputation is measured using the key performance indicator Reputation Index.

Key performance indicator

	2018	2017	Change in %	Forecast 2018
Reputation Index	51.3	52.1	-1.5	52.7

The Reputation Index of EnBW fell to 51.3 index points in the reporting year. This was a significant deviation from the target value for 2018. The values for comparable large companies fell more than the reputation of EnBW, while the values for municipal utilities and regional suppliers remained at the levels achieved in the previous year. As a result, the advantage held by EnBW over national energy suppliers with respect to reputation once again widened a little in 2018. However, the deficit between EnBW and smaller competitors also grew at the same time. In comparison to the previous year, this can be attributed to, amongst other things, the reduced media presence of EnBW themes in 2018.

More details on reputational risks can be found in the "Report on opportunities and risks" on p. 118.

Customer proximity

EnBW wants to take steps towards becoming an infrastructure provider. A sustainable contribution could be made, for example, in the form of cooperative partnership models with local authorities, municipal utilities and suppliers. EnBW also has great opportunities for generating additional revenue and for acquiring new customers using tailored digital services and solutions.

An important step in this direction was taken with the introduction of the sales and operation platform EnPower. EnPower was first launched for the NaturEnergie+ brand in the middle of 2017, then for Yello in the summer of 2018 and the EnBW brand is now also working intensively on this project. On the one hand, EnPower facilitates better interaction between customers and the EnBW, Yello and NaturEnergiePlus brands, while on the other hand, it provides the foundations for operating excellence with respect to the digitalisation, automation and streamlining of settlement processes for the supply of electricity. The non-commodity business is currently also being switched over to a new scalable IT platform. It will replace existing stand-alone solutions, cover the entire customer relationship and enable a 360 degree customer view thanks to its interface to EnPower. The first products such as the e-mobility charging infrastructure (Glossary, p. 153) were already transferred to the new platform in 2018.

TOP Customer Satisfaction Index

The energy sector is driving major social changes. The new energy world is full of great opportunities that we want to exploit. Our customers stand at the focal point of our work and we strive to maintain long-term customer relationships by offering networked products and new product combinations, continuous open communication and the best possible quality of service. Customer loyalty is based on high customer satisfaction, which is measured in accordance with the requirements of the EnBW Group standard for market research and surveys. It is binding for EnBW and its subsidiaries. The Customer Satisfaction Index for the two brands of EnBW and Yello are compiled from customer surveys carried out by an external provider.

Key performance indicator

	2018	2017	Change in %	Forecast 2018
Customer Satisfaction Index for EnBW/Yello	120/152	143/161	-16.1/-5.6	128-138/ 148-159

The satisfaction of the customers of EnBW reached a good level in 2018 at 120 points. A good level is achieved when half of those surveyed indicate that overall they are particularly satisfied with EnBW. This is the case from 114 points and upwards. A very good level of satisfaction is achieved from 136 points upwards. The Customer Satisfaction Index for EnBW of 120 points was below the forecasted range. This can be explained to some extent by the fact that both regional suppliers and municipal utilities and also most of the major competitors across Germany had lower levels of overall customer satisfaction compared to 2017. This trend in the sector was also experienced at EnBW. In addition, price increases in early 2018 had a negative effect on customer satisfaction.

The satisfaction of Yello customers was once again stable at a very good level in 2018 at 152 points. However, the satisfaction of Yello customers nevertheless fell in comparison to the outstanding result in the previous year. Yello carried out a system migration in the summer of 2018. During the migration, Yello reduced its marketing activities and some services were only available to Yello customers to a limited extent for a short period of time.

EnBW, Yello and NaturEnergie+ received several **awards** for their products and customer service in 2018. EnBW was awarded the title of "Best electricity supplier in Germany" by Focus Money magazine and Statista as part of the Energy Atlas Germany 2018. The magazine Wirtschaftswoche (10/2018) ranked the best gas suppliers in the 100 largest cities using data from the comparison portal Verivox. The result: EnBW is one of the fairest gas suppliers in Germany. Both Yello and NaturEnergie+ were awarded the title of "Fairest electricity supplier" for the eighth time by Focus Money (edition 38/2018). In addition, EnBW won the Contracting Award for the second time in 2018, following its first award in 2010. The award is presented by the Energy Efficiency Association for Heating, Cooling and Combined Heat and Power (AGFW) and the magazine Energie & Management.

The **EnBW campaign** "We're making it happen" was continued with new refined motifs in 2018. The key themes were electromobility, wind power and customer solutions, using the example of EnBW solar+. It was important to EnBW to place a strong focus on customers in the implementation of the campaign. In this respect, the campaign is a logical continuation of the 2016 and 2017 campaigns – but shifting the focus from employees (the people making the Energiewende happen) to customers. The ongoing aim is to show a new EnBW that presents itself with a fresher and more unconventional image than before, especially on the advertising market. The campaign has been accompanied by two videos: An image video demonstrated the power that energy can give to people. A second video was a continuation of the animation film featuring "the birds on the high-voltage power line" that provided a humorous look at the theme of electromobility in 2018.

In 2018, EnBW expanded its portfolio of energy industry services and energy solutions and carried out numerous sales activities and communication measures. A special emphasis was placed here on **electromobility.** In this sector, EnBW has become a full-service provider and together with its subsidiaries covers the complete spectrum of services for the development and expansion of electromobility from the supply of electricity and the operation of a comprehensive charging infrastructure (Glossary, p. 153) through to digital services for the consumer. EnBW entered into various collaborations with renowned partners in 2018 that promote, above all, the expansion of the quick-charging infrastructure in urban areas across Germany. At the same time, EnBW almost tripled the number of charging stations available via the EnBW mobility+ app. The number of publicly accessible charging stations in Germany, Austria and Switzerland covered by the app increased from 8,000 to more than 22,000 in 2018. In addition, drivers can use the app directly to pay for the electricity used to charge their e-cars at these stations. The EnBW mobility+ Wallbox enables safe and easy charging at home with a charging capacity of up to 11 kW.

In the **SAFE project** (core charging network for electric cars in Baden-Württemberg), which is being promoted by the State of Baden-Württemberg, 77 municipal utilities, suppliers and local authorities are working together to develop a core charging network in Baden-Württemberg. EnBW is coordinating the project as the head of the consortium and acts as the contact for the state authorities.

With the solar solution **EnBW solar+**, customers themselves can become energy producers. A solar power plant including a storage system enables customers to produce their own solar electricity and then store it for use later on. We are working together closely with our subsidiary SENEC in this area. The acquisition of SENEC GmbH in the reporting year represented a major step towards EnBW becoming a full-service provider for home energy solutions. SENEC has sold more than 20,000 electricity storage systems with energy management functions and is one of the most important suppliers on the home storage market in Germany.

We use **bundle offers** (Glossary, p. 152) to offer customers attractive deals, promote market penetration and strengthen customer loyalty. Our customers are currently able to choose from three different devices with the new EnBW tariffs. At the same time, a cross-selling and customer referral campaign was started in combination with online advertising to increase traffic on our websites. The **Yello** Plus tariff – an energy contract offered in combination with a chosen device – was also in high demand in 2018. The range of hardware options available was continuously expanded to improve the attractiveness of the product even further.

The **contracting** business field has been made more competitive, transparent and sustainable by optimising the process for issuing quotes, customer proximity and shortening response times. A project realised by EnBW that involves an energy network solution in Waldbronn, near Karlsruhe, is one example here. Two industrial companies and two local authority facilities are supplied with heating, cooling, cooling water and electricity. The use of combined heat and power technology and the utilisation of waste heat not only result in cheaper generation costs but also avoid 680 t CO_2 emissions per year.

EnBW supports local authorities and municipal associations in the area of **broadband** (Glossary, p. 152) – from the planning and installation of infrastructure through to operation and the end-customer business. Cost efficiency, fast implementation and customer satisfaction hold the highest priorities in this area. For example, Rechtenstein is one of three communities across Germany that has received funding to become a "fibre-optic community" by installing fibre-optic cables throughout the entire area. Our subsidiary Netze BW began the construction work in October 2018. All of the companies and most of the households will have direct access to the fibre-optic network by the end of 2019. The network will be operated by NetCom BW. The company RBS wave, a subsidiary of Netze BW, secured the contract in a Europe-wide tender process in July 2018 to develop a broadband network for the Rastatt administrative district as the general planner. In the project, RBS wave is responsible for planning the fibre-optic backbone network for the connections to local areas of expansion/industrial estates, public facilities and all schools in the administrative district. The company is involved in all stages of the project through to completion and will thus have an active presence in all local authority areas. Another example for the development and expansion of critical system infrastructure in neighbouring business fields is security technology: Gernsbach in Murgtal will be the first community in Baden-Württemberg, for example, to be fitted by EnBW with the new product EnBW SafePlaces – a smart video sensor system that is connected to the EnBW security control centre.

Supply reliability

Guaranteeing a reliable supply of electricity to our customers is a key goal of EnBW and its grid subsidiaries. For this purpose, the electricity grids must perform their distribution function with sufficiently high continuity. SAIDI is used as an indicator for supply reliability; it states the average duration of supply interruptions per connected end customer in minutes per year.

TOP SAIDI

SAIDI is one of the key performance indicators in the area of electricity grids and is optimised by the distribution grid operators of EnBW using various processes that are partially integrated with one another: the desired grid topology (Glossary, p. 153) in the long term is thus already oriented towards optimising SAIDI at the planning stage. As part of an IT-supported asset simulation, various technical variants and their associated investment budgets are then analysed. Once the chosen variant has been implemented, the available investment budget for optimising SAIDI is distributed to the various different projects on an annual basis. The specific measures are selected based on performance indicators for plant reliability.

Key performance indicator

	2018	2017	Change in %	Forecast 2018
SAIDI (electricity) in min./year	17	19	-10.5	15-20

A similarly good level for SAIDI was achieved in the EnBW Group in 2018 as in the previous year and it was thus within the forecasted range.

Employees goal dimension

The key tasks of HR are providing the company with employees, including the promotion of young talent, encouraging loyalty to the company amongst employees and maintaining and fostering their motivation, satisfaction and employability. Leadership, corporate culture, HR development and health management are key aspects in this area. Other important elements of a successful HR policy are ensuring the best possible employment conditions, such as in the negotiation of collective bargaining agreements, as well as adapting the organisational structure to the business environment.

Therefore, we believe that the value drivers for our HR policy can be found in the following areas of focus:

- Leadership
- Safeguarding and promoting expertise
- Employment conditions and structures
- Health management

Employee Commitment

TOP Employee Commitment Index (ECI)

The key performance indicator ECI is an important indicator for EnBW as it reflects the degree to which employees identify with the company. The annual measurement of this indicator enables us to respond specifically to any negative trends at an early stage.

Key performance indicator

	2018	2017	Change in %	Forecast 2018
Employee Commitment Index (ECI) [1]	62	60	3.3	62

1 Variations in the group of consolidated companies (consideration of companies controlled by the Group [without ITOs])

The fourth short survey for monitoring the ECI – MAB-Blitzlicht (Employee Flashlight) – was carried out between 17 September and 5 October 2018. As in the previous year, the MAB-Blitzlicht survey comprised just twelve questions and was carried out by taking a random representative sample. As in the full surveys, it collected information on the level of commitment of the employees to the Group and to their respective company. The ECI from MAB-Blitzlicht 2018 revealed a clear improvement from 60 (2017) to 62 points. The target set for 2018 was thus achieved. Considering the period of transformation at EnBW, the ECI value achieved by the Group placed it in a good position at the high end of mid-table when ranked against other companies in the sector.

The positive development of the ECI can once again be attributed to a better perception of the current competitiveness of the Group and employees having greater trust in the future viability of the Group. Following the latest survey, the Board of Management again set itself the goal of reducing the uncertainty and scepticism of the workforce with respect to these two factors. This was achieved through the resolute implementation of the 2020 strategy, in which we have made successful progress, and the discussion of the post 2020 strategy in dialogue with managers and employees across all departments and companies (strategy dialogue). In particular, the significant improvement in the perception of the competitiveness and future viability of the company by top and upper management demonstrated that the strategy presented and followed by the Board of Management of the Group has been met with acceptance and support. It was also possible to transfer this increasingly positive image to the remaining management team and employees and integrate them even more strongly into the process.

Areas of focus in HR

The most substantial measures and activities carried out by EnBW and the key subsidiaries are reported in the following areas of focus.

Leadership: The digital energy industry is characterised by a high level of complexity. In order to be able to react and lead appropriately in this environment, new skills are required. The leadership development activities at EnBW concentrate on the themes of managing the business, developing new products, leading people, methodological excellence and self-management as part of the **"Digital Leadership"** programme. Special importance is being given here to the improvement of cross-departmental cooperation and the formation of effective leadership coalitions, which are also supported by the increased use of agreements on team targets. The "Next Level Leadership" initiative has grown out of the "Digital Leadership" programme: After receiving fundamental guidance on what behaviour and skills are helpful in an increasingly dynamic and less predictable world, employees in leadership positions are provided with advice and offered individual learning experiences. A group of digital pioneers is, for example, being provided with an opportunity to learn about specific digital technologies and business models. In addition, change projects can be mentored through internal and external advice given on the job. For this, we use modern learning formats that enable participants to directly experience contemporary leadership at work. The aim is to realise the digital transformation of the Group more quickly and effectively.

The **Leadership Forum 2018** focused on the theme of "leadership and cooperation in a period of transition" for the successful implementation of the strategy post 2020. More than 700 managers and employees in leadership positions without disciplinary responsibility were able to exchange ideas on the new challenges, common values and individual learning goals at the event.

Alongside the annual management day and continuous training opportunities, the focus at PRE was placed on carrying out Assessment and Development Centres and work assessments based on a competency model. The Development Centre generally defines the development requirements for new or existing managers once a year based on eight managerial skills.

At Stadtwerke Düsseldorf (SWD), the focus in terms of leadership in the reporting year was placed on the continuation of the "Management Dialogue" and "Health-oriented Leadership" formats, as well as the "Kick-start for new managers" and "Equal opportunities in leadership" concepts.

VNG started the "Leadership compass" project in 2017. As part of this project, principles for appreciative leadership were developed together with managers. Eight meetings were held on this theme in 2018. The 180 degree feedback process for all management personnel at the VNG Group, which included a self-assessment by the managers and also an assessment by their superiors and employees, was also carried out. In addition, there were three managerial and employee days held on the theme of leadership and cooperation in the era of digitalisation.

The International VNG P-Community meeting – which enabled a comprehensive exchange of ideas on current and perspective HR issues – was also held for the first time in 2018.

Safeguarding and promoting expertise: An important goal for EnBW is to be an attractive employer so that it can secure the expertise it requires and then retain this expertise within the company. In particular, the concepts and measures developed for this purpose focus on the themes of diversity, the promotion of young talent and the attractiveness of the employer.

Proportion of women and part-time employees at EnBW

in %	2018	2017	Change
Proportion of women in the overall workforce	26.4	26.2	0.2
Proportion of women in management positions	15.3	15.2	0.1
Proportion of women in management positions at EnBW AG			
First level below the Board of Management [1]	0.0	4.3	-4.3
Second level below the Board of Management [1]	15.1	14.0	1.1
Total proportion of part-time employees [2]	9.4	9.4	0.0
of which women [2]	82.8	82.6	0.2
of which men [2]	17.2	17.4	-0.2

1 The values refer to EnBW AG.
2 Excluding those in semi-retirement.

EnBW promotes **diversity** amongst its employees. Under the motto "Diversity generates success", EnBW relies on a diverse workforce in terms of numerous different criteria such as gender, age, interculturality, sexual orientation and people with disabilities, as well as sector backgrounds, different working models and work organisation. We hope to use the diversity in people and perspectives to better respond to the needs of the market, accelerate the speed of innovation, be an attractive employer and thus shape a successful future. The aim is to utilise the opportunities offered by diversity in all areas of the company so as to generate added value for employees and also for EnBW. In recognition of this diversity, EnBW took part in the Christopher Street Day in Stuttgart for the first time in 2018 with its own float. The motto was "LivingDiversity". We want to signal through our involvement that our workforce reflects the diversity of society and our customers and that we stand for an open society. In November 2018, the second "Diversity and Innovation" conference was held at the Innovation Campus in Karlsruhe with both internal and external participants. The focus was placed on the theme of "Actively managing diversity – opportunities and challenges". The aim of the conference was to discuss and promote the current diversity agenda at EnBW.

The fall in the proportion of women at the first level below the Board of Management was due to one person leaving the company without replacement and the fact that no other new appointments were made at this level in 2018. EnBW AG is placing its focus on increasing the number of women at the second level in order to develop suitable candidates for the first level.

The Board of Management has set the goal of further increasing the proportion of women in both management levels below the Board of Management in the period from 1 January 2017 to 31 December 2020. At both the first level (top management) and second level (upper management), the proportion of women should increase to at least 20%. Despite a great deal of effort, these targets were not yet achieved in 2018 (as of 31 December 2018).

Above and beyond the statutory requirements, the Board of Management focuses on diversity when filling management positions at the EnBW Group and also strives to give appropriate consideration to women. A fundamental goal of EnBW is to appoint women at all levels of the hierarchy. After piloting the multi-stage advisory service “CareerCompass” in 2016, the number of women provided with advice increased from 17 in 2017 to 49 in 2018. The advice is specifically designed for women with the potential to assume leadership roles, based on their previous career experience. The internal EnBW women’s network is a well-used platform for female employees with and without leadership responsibility to exchange information and ideas.

In the external recruitment of young female leadership talent, EnBW relies on, amongst other measures, the Femtec network and participates in trade fairs and discussion forums tailored specifically for women. In the “Initiative Chefsache” network, the company has collaborated in five working groups. These include groups focussing on the themes of “Rethinking the development of talent” and “Part-time management” from which the internal pilot scheme “Management on a part-time/job-sharing basis” was derived in 2018 for employees in management positions. In the individual business units, sector-specific events and campaigns are carried out to address relevant requirements. For example, the subsidiary Netze BW holds an annual Women’s Day that is specifically tailored to interested female students.

To ensure the success of the digital transformation at EnBW and find the right employees for growth fields such as electromobility, recruitment activities focus on securing the necessary new talent on the market. It is becoming increasingly difficult to find qualified experts with the required know-how on the external job market. Therefore, EnBW is developing its own active sourcing expertise to actively seek out potential candidates. For this purpose, the placement of advertisements and campaigns together with the channels and media used are oriented towards specific candidates. In addition, EnBW has started an “employees recruit employees” programme in selected areas of the company. An example of the success of our measures is the fact that EnBW AG was also certified by the Top Employers Institute as a Top Employer Germany 2018 based on a comprehensive catalogue of criteria and an external audit.

Promotion of young talent

in %	2018	2017	Change
Proportion of trainees including DH students	4.1	4.3	-0.2
Proportion of working students/interns	5.0	4.2	0.8

Another part of the HR policy is **promoting young talent**. The EnBW Group employed 938 trainees and students from the Cooperative State University (DH) as of 31 December 2018. There are plans to appoint 346 new trainees and DH students in 2019.

SWD launched the “Employer brand” project in 2018. Workshops were used here to assess aspects of cooperation and interaction in the company and compare the current situation with the desired goal. The results from these workshops and interviews are summarised in the positioning statement of the company as an employer. This is then communicated to the workforce and used as the basis for HR marketing.

VNG started discussions with Berufsakademie Sachsen, Staatliche Studienakademie Leipzig (the University of Cooperative Education) in 2017 about replacing the apprenticeship to become an industrial merchant with a dual degree. In particular, the new course should take into account the requirements of the digital world. The aim is for VNG and the university to develop a module on digitalisation together by 2019 that accounts for around 30% of the teaching content. In 2018, three students started their dual degrees at the university. Both internal and external workshops on the theme of digital working were also held. In a list compiled by the business magazine Focus on “The best employers in Saxony 2018”, VNG was ranked in third place.

ED started a competence management project for the operation and maintenance of power plants in 2018 with a focus on the following four aspects: competence matrix, competence assessment, career and succession planning, and functional descriptions. Five information events were held to inform employees about the subject matter and train them to use the tools. A management workshop was then held at the end of November to evaluate the results from these events. In addition, managers were trained on how to handle discussions and evaluations, as well as on general themes dealing with the characteristics required for leadership.

PRE implemented numerous specific measures in 2018 that focussed on the recruitment of new employees in growth fields and the promotion of young talent.

EnBW introduced the new **communication platform Yammer** in 2018. It offers employees a diverse range of opportunities to exchange ideas, share experiences and work together on different themes. Yammer replaces Teamblog, which was introduced as the first digital dialogue medium within the

Group at the end of 2014. Every employee can use the new platform to write articles, start small surveys and exchange ideas and information within public and closed groups. These groups are not tied to the departments and can be directly set up by all employees. The decision to launch Yammer as the official communication channel is the result of a joint project by IT and internal communication in close cooperation with the works council.

Employment conditions and structures: Further **efficiency measures** in some of the operational areas and functional units of EnBW AG are necessary to achieve additional savings up to 2020. In the functional units, the main focus was placed on the realignment of the IT department. In 2018, special emphasis was placed on training employees and recruiting new employees with key skills with respect to digitalisation and further strengthening the business orientation of the IT department. The ongoing efficiency enhancement programme in the area of conventional generation was rigorously continued. In the area of nuclear generation, further measures were agreed for the transition to the dismantling of the power plants. As a response to the increasing market pressure and in order to retain or enhance market viability and competitiveness and thus safeguard jobs, B2C services and activities relating to the third-party market were realigned within the operations business unit. Alongside the optimisation of the organisational structure that was completed on 1 April 2018, this included the successful introduction of new, agile, cross-functional working methods. As part of the further refinement of the organisational structure, another challenging milestone was achieved when the Yello brand went live on the new IT platform. This will make it possible to reduce the number of employees within the planned time period using socially acceptable tools. Other effects were achieved through adjustments to provisions in collective bargaining agreements as of 1 April 2018, such as increasing the weekly working hours, extending the framework working hours and adjustments to classifications.

Despite difficult underlying conditions, EnBW also achieved its ambitious earnings target in 2018. The Board of Management honoured the huge efforts made by the whole EnBW team with its decision to pay a **profit-sharing bonus** in 2018. The existing arrangement – according to which no profit-sharing bonus should be paid in 2018 – was once again suspended in agreement with the works councils.

The union ver.di and the Employers Association for Electricity Power Plants in Baden-Württemberg agreed on 19 February 2018 that remuneration will increase by 3.0% from 1 February 2018. Remuneration will increase uniformly for all trainees by €70. Holiday pay under the collective agreement was increased by 9.0%. This collective remuneration agreement was terminated by the union by the due date of 28 February 2019. The negotiations for a follow-up agreement resulted in an agreement on 28 February 2019 whereby **tariff-based remuneration** will increase in three stages over a period that runs until at least 28 February 2021: by 2.5% from 1 March 2019, by a further 1.9% from 1 November 2019 and by an additional 1.9% from 1 July 2020. The remuneration rates for trainees will increase on these dates by €80, €50 and then a further €50. The collective bargaining agreement at PRE was extended by two years at the beginning of 2018. The agreed increase in remuneration was above the guaranteed minimum increase in the previous collective bargaining agreement due to the challenges on the Czech labour market.

Health management: The welfare of employees has always been an important issue for EnBW. As part of occupational health and safety management, the company offers a variety of activities in the areas of occupational safety and health protection in the key companies. For example, a **week-long campaign** on the theme of “Don't stress about stress” was held at the Karlsruhe site at the beginning of October 2018 in which employees of EnBW were able to participate in talks and workshops. In addition, employees were able to measure their heart rate variability to obtain information on their own personal stress levels. Another example is provided by the **health days** that were organised by EnBW at the start of the 2018 training year for the new commercial and technical apprentices at the sites in Karlsruhe, Stuttgart, Heilbronn and Biberach. During these health days, the apprentices were able to gain an overview of the health services offered by EnBW – from medical examinations and health courses through to preventative measures for specific target groups. In addition, the police departments at each of the training sites supported the preventative activities offered by EnBW with **talks and workshops** on themes such as addiction to alcohol, drugs, mobile phones, the Internet and gaming, as well as traffic safety, cyberbullying, violence prevention and the correct use of digital media.

All of the teams and departments at ED were surveyed on the subject of “Risk assessment – psychological stress” in 2018 and the first measures were derived from the results. Furthermore, the possibilities for working from home and for mobile working were expanded as part of the measures undertaken for validation of the “berufundfamilie” (“career and family”) certificate. PRE offers, amongst other things, a comprehensive preventative programme that focuses on breast, skin and prostate cancer. SWD has a programme focussing on health-oriented management at the team leader level. There are also numerous opportunities for employees to improve their personal fitness and take advantage of preventative healthcare, such as seasonal flu injections. VNG offers a comprehensive range of preventative occupational medicine in the fields of heart, circulation, metabolism and musculoskeletal illnesses via its company doctors and also carries out eye and hearing tests as well as ECG and laboratory testing. In addition, the company arranges appointments with specialist doctors at short notice in cooperation with a health–care centre in Leipzig.

Sickness ratio

in %	2018	2017	Change
Sickness ratio	5.1	5.0	0.1

The sickness ratio did not change significantly compared to the previous year.

Other performance indicators

Employees of the EnBW Group[1]

	31/12/2018	31/12/2017	Change in %
Sales	3,657	3,331	9.8
Grids	8,920	8,858	0.7
Renewable Energies	1,144	1,050	9.0
Generation and Trading	5,419	5,457	-0.7
Other	2,635	2,656	-0.8
Total	**21,775**	**21,352**	**2.0**
Number of full-time equivalents[2]	20,379	19,939	2.2

1 Number of employees excluding apprentices/trainees and inactive employees.
2 Converted into full-time equivalents.

As of 31 December 2018, the EnBW Group had 21,775 employees. As new appointments are only being made in strategic growth fields, the number of employees was just slightly higher than the level at the end of 2017. The increase in the Sales segment was mainly due to restructuring within the Group. This was offset to some extent by the withdrawal from the B2B commodity business under the EnBW and Watt brands. The number of employees in the Grids segment increased compared to the previous year's reporting date. This was due to two conflicting developments: on the one hand, the movement of employees to the Sales and Renewable Energies segments as part of the restructuring, and on the other hand, an increase in the number of employees due to the growing importance of the regulated business and the first-time consolidation of Technologie Service Heilbronn GmbH. The reduction in the Generation and Trading segment was mainly due to the deconsolidation of VNG Norge. Restructuring within the Group and the associated transfer of employees to the Sales segment and the planned departure of employees based on earlier restructuring programmes resulted in a decrease in the number of employees in the "Other" segment. However, these two effects were partially balanced out due to the new appointments in the business areas of digitalisation and critical infrastructure.

Turnover

in %	2018	2017	Change
Employee turnover ratio	6.5	7.0	-0.5

In contrast to 2017, there were no new restructuring programmes in 2018. The employee turnover ratio thus fell in comparison to the previous year.

Further performance indicators for employees, such as the regional distribution or age structure of our employees, can be found on our website at www.enbw.com/performance-indicators.

We also refer you to the details provided in the "Report on opportunities and risks" (p. 118).

Occupational safety

The main goals of EnBW in the area of occupational safety are to avoid accidents and work-related illness, to create a safe working environment and clearly regulate responsibilities, roles and processes. In order to achieve these targets, EnBW already founded the Occupational Safety Working Group (AK KAS) in 2003. AK KAS has the task of regulating issues that affect all companies uniformly within the Group. Its scope of application covers those companies that use LTIF as a performance indicator. AK KAS is headed by the Chief Technical Officer of EnBW and has the power to make binding decisions in accordance with the company's rules of procedure.

TOP LTIF

The key performance indicator LTIF is used to measure the number of accidents at work and the resulting days of absence. Every Group company included in the consolidated companies for the LTIF receives an individual target from the Board of Management for the relevant year – the fulfilment of this LTIF target flows into the monetary assessments for the achievement of relevant targets. Above and beyond these targets, the companies also set their own individual targets.

Key performance indicator

	2018	2017	Change in %	Forecast 2018
LTIF[1]	2.3	3.0	-23.3	≤ 3.7[2]

1 Variations in the group of consolidated companies (consideration of all employees at those companies controlled by the Group, except external agency workers and contractors).
2 Three-year target for 2017, 2018 and 2019.

In 2018, the LTIF improved significantly compared to the previous year to 2.3, after this key performance indicator had already experienced a noticeable drop in 2017. However, the average days of absence per accident rose to 22.2 (previous year: 16.8). We believe that the significant improvement in occupational safety at EnBW is the result of consistent and effective activities in the area of occupational safety and health protection.

In the reporting year, there was a fatal accident at a third-party company that was working on behalf of the EnBW Group.

The measures for achieving targets are independently defined by the Group companies. There were various different **activities focussing on occupational safety** in 2018:

The new software EcoWebDesk (EWD) – which has been called Quentic since October 2018 – was introduced into further areas at EnBW. The technical preparations for the deployment of Quentic have largely been concluded. Important elements of Quentic are the documentation of risk assessments and hazardous substance management. The launch of the "Risk & Audit" (audit management) module at our subsidiary Netze BW will begin in 2019.

In the Grids segment, a series of campaigns to further improve the safety culture were carried out in 2018:

- A meeting of the safety officers to discuss the latest issues was held in April. In addition, some manufacturers presented their products in the area of personal protective equipment at this large event. Seminars have been offered for the safety officers to help them improve their role since the end of 2017.
- The occupational safety management system was successfully recertified in September.
- In November, Netze BW carried out a "Flashlight Day" across all sites to raise awareness amongst employees for occupational safety and health protection.
- The project "Working safely on the grid" (SaiN), which was designed to ensure that employees working on behalf of the grid operating companies are trained to a sufficient level, was concluded in 2018.

In the area of conventional and renewable generation, a two-day campaign called "Occupational safety days" was held at each of the power plant sites. Rescue concepts (rescuing at heights and depths) at the individual sites were also improved further. In addition, the "100 days without accidents" campaign started in 2015 was continued. The 100-day goal was achieved a total of 16 times across a number of power plant sites.

The main focus at SWD was placed on the following activities:

- As part of the occupational safety and healthcare protection programme OS/HP Programme 2015plus, a concept for dealing with "near accidents" was developed.
- The workshop covering behavioural aspects was continued as part of the OS/HP Programme 2015plus.
- As part of the "RheinSchiene" project, a special "safety officers' day" was held for the first time in Düsseldorf.

We also refer you to the details provided in the "Report on opportunities and risks" (p. 118).

Environment goal dimension

The main subsidiaries of EnBW that have to deal with environmental issues have an environmental management system certified according to DIN EN ISO 14001:2015. These include, amongst others, EnBW AG, Netze BW, Stadtwerke Düsseldorf and Energiedienst Holding. In accordance with the DIN standard, these environmental management systems follow a concept of continuous improvement in environmental performance which is based on the method Plan-Do-Check-Act (PDCA). The systems encompass the definition and realisation of environmental targets with their performance indicators and corresponding measures, the procedures and responsibilities and the identification of environmentally relevant risks and opportunities. Alongside the Group environmental targets, which are modelled with the aid of the key performance indicators, the main subsidiaries that have to deal with environmental issues have also defined additional, quantified environmental targets within the scope of their environmental management systems – especially in the areas of energy saving/efficiency and mobility. Using established due diligence processes and internal audit programmes, the agreed regulations and guidelines are then monitored in terms of legal and other requirements, as well as with regard to the defined environmental targets. In addition, the effectiveness of the measures and targets is examined by external certification bodies as part of the annual conformity audits of the environmental management systems. If necessary, the processes and guidelines, as well as the targets and measures, will be adjusted. The consistent implementation and further development of the environmental management system guarantees that significant negative impacts on the environment can be avoided as well as possible. Risks generally exist in the area of environmental protection due to the operation of power generation and transmission plants and the possible consequences for the air, water, soil and ozone layer. These risks are countered by EnBW using an emergency and crisis management system that has been implemented throughout the Group and includes comprehensive organisational and procedural measures.

Our Group environmental targets are related to the expansion of renewable energies and making our contribution to climate protection. These targets are measured using the key performance indicators "installed output of renewable energies (RE) and the share of the generation capacity accounted for by RE" and CO_2 intensity (Glossary, p. 152).

Expansion of Renewable Energies

Key performance indicator

	2018	2017	Change in %	Forecast 2018
Installed output of RE in GW and the share of the generation capacity accounted for by RE in % [1]	3.7/27.9	3.4/25.8	8.8/8.1	3.6–3.7/27–28

1 The figures for the previous year have been restated.

TOP Installed output of renewable energies (RE) and the share of the generation capacity accounted for by RE

In the reporting year, the installed output of renewable energies increased by 387 MW to around 3.7 GW and was thus within the range of the forecast. This was primarily due to the commissioning of the pumped storage power plant Obervermuntwerk II. In addition, 178 MW was attributable to the expansion and acquisition of several onshore wind farms with a total of 81 wind turbines. An additional 22 MW of output was added at photovoltaic power plants. Overall, the share of the generation capacity accounted for by RE increased – within the range of the forecast – to 27.9%.

Breakdown of the generation portfolio of the EnBW Group [1] (as of 31/12)

Electrical output [2,3] in MW	2018	2017
Renewable Energies	**3,738**	**3,351**
Run-of-river power plants	1,006	1,004
Storage/pumped storage power plants using the natural flow of water [3]	1,507	1,327
Onshore wind	718	540
Offshore wind	336	336
Other renewable energies	171	144
Thermal power plants [4]	**9,661**	**9,656**
Brown coal	875	875
Hard coal	3,491	3,523
Gas	1,468	1,431
Other thermal power plants	349	349
Pumped storage power plants that do not use the natural flow of water [3]	545	545
Nuclear power plants	2,933	2,933
Installed output of EnBW Group [5]	**13,399**	**13,007**
of which renewable in %	27.9	25.8
of which low CO_2 in % [6]	15.0	15.2

1 The generation portfolio includes long-term procurement agreements and generation from partly owned power plants.
2 The figures for the previous year have been restated.
3 Output values irrespective of marketing channel, for storage: generation capacity.
4 Including pumped storage power plants that do not use the natural flow of water.
5 In addition, power plants with an installed output of 1,706 MW were registered for decommissioning. However, they were classified as system-relevant by the Federal Network Agency and TransnetBW and are thus used by TransnetBW as reserve grid capacity.
6 Excluding renewable energies; only gas power plants and storage power plants that do not use the natural flow of water.

Own generation of the EnBW Group [1] by primary energy source

in GWh	2018	2017
Renewable Energies	**8,414**	**8,290**
Run-of-river power plants	4,846	5,012
Storage/pumped storage power plants using the natural flow of water	1,030	946
Onshore wind	996	661
Offshore wind	1,233	1,416
Other renewable energies	309	255
Thermal power plants [2]	**45,078**	**41,904**
Brown coal	6,048	6,027
Hard coal	12,868	12,977
Gas	3,518	3,436
Other thermal power plants	198	211
Pumped storage power plants that do not use the natural flow of water	1,790	1,721
Nuclear power plants	20,656	17,532
Own generation of the EnBW Group	**53,492**	**50,194**
of which renewable in %	15.7	16.5
of which low CO_2 in % [3]	9.9	10.3

1 Own electricity generation includes long-term procurement agreements and partly owned power plants.
2 Including pumped storage power plants that do not use the natural flow of water.
3 Excluding renewable energies; only gas power plants and storage power plants that do not use the natural flow of water.

Own generation of the EnBW Group increased in 2018 compared to the previous year to around 53.5 TWh. Generation based on renewable energy sources mainly increased due to the expansion of onshore wind power. This was offset to some extent by lower generation from offshore wind power due to unfavourable wind conditions, and at the run-of-river power plants due to low water levels in the second half of 2018. The proportion of own generation from renewable energy sources fell despite the increased generation in comparison to 2017 to 15.7%. The reason for this was an increase in own generation from nuclear energy caused by the extension of the inspection and related production shortfall at KKP 2 in the previous year.

In October 2018, a green bond (Glossary, p. 153) was issued to finance, amongst other things, the further expansion of the onshore wind farm portfolio (p. 85 f.).

Climate protection

Key performance indicator

	2018	2017	Change in %	Forecast 2018
CO_2 intensity in g/kWh	553	556	-0.5	-10% to 0%

TOP CO_2 intensity

The CO_2 intensity (Glossary, p. 152) of own generation of electricity excluding nuclear power fell slightly in comparison to the previous year by 0.5% to 553 g/kWh and was thus within our forecasted range. This fall was due to the higher generation from renewable sources and the simultaneous almost constant level of electricity generation from fossil fuels in comparison to 2017.

Other performance indicators

In addition to the key performance indicators in the area of the environment, EnBW utilises a broad range of additional environmental indicators for measuring, controlling and presenting the other results of its environmentally relevant activities. The most important performance indicators are presented in the following table on p. 104. A comprehensive presentation of the environmental performance indicators for EnBW can be found on the Internet at www.enbw.com/umweltschutz.

There is also information available here on our wide-ranging measures to improve energy efficiency, the conservation of biological diversity and the protection of nature and species, such as our EnBW amphibian protection programmes or on ecological enhancement measures in the area of our hydroelectric power plants. In addition, further information relating to the Global Reporting Initiative (GRI standards) can be found on the Internet.

Carbon footprint: Direct CO_2 emissions are determined mainly by the deployment of power plants. The slight decrease in electricity generation from coal led to a corresponding reduction in the direct CO_2 emissions from 16.7 to 16.6 million t CO_2eq. Lower indirect CO_2 emissions from grid losses led to a fall in Scope 2 CO_2 emissions from 1.1 million t CO_2 to 1.0 million t CO_2eq. The Scope 3 CO_2 emissions are mainly influenced by the gas consumption of our customers. EnBW has significantly expanded its gas sales due to the acquisition of VNG. VNG was only fully consolidated in the second quarter of 2017. Gas sales in the first quarter were thus reported for the first time in the 2018 financial year. This resulted in a significant increase in Scope 3 emissions. As a result of the increased generation from renewable energy sources and rise in the use of biomethane, CO_2 emissions avoided rose from 6.3 to 6.9 million t CO_2eq.

Energy consumption: Total final energy consumption includes the consumption of final energy for the business activities of EnBW. It does not include conversion losses during energy generation or grid losses. Total final energy consumption is mostly influenced by pump energy as well as the company's own consumption requirements and the operating consumption of the power plants. It remained almost unchanged at the same level as in the previous year at 3,252 GWh.

The proportion of renewable energies in the final energy consumption increased from 49% in 2017 to 51% in 2018. This was primarily due to an increase in pump energy at the pumped storage power plants operated by Vorarlberger Illwerke, which utilise green electricity.

The energy consumption of our buildings covers the energy required for heating rooms, providing hot water and electricity. The energy consumption of buildings per employee increased from 10,214 kWh in 2017 to 10,482 kWh in 2018. This increase is not due to higher energy consumption, but rather to the fact that VNG was only fully consolidated in the second quarter of 2017. Accordingly, the high amount of energy consumed by VNG for heating due to the weather conditions in the first quarter of 2017 was not included in the figures and resulted in lower energy consumption per employee for the previous year.

Environmental protection expenditure: We report environmental protection expenditure in line with the requirements of the statistical offices and using the guidelines published by our sector association, the BDEW. Investment in the expansion of renewable energies in 2018 was below the level in the previous year. The reason for this development was the sharp expansion in onshore wind farms in 2017. This led to a reduction in investment for environmental protection to €535 million and a drop in the ongoing expenditure relating to environmental protection to €268 million in comparison to the previous year.

Environmental performance indicators

	Unit	2018	2017
Carbon footprint			
Direct CO_2 emissions (Scope 1) [1,2]	millions of t CO_2eq	16.6	16.7
Indirect CO_2 emissions (Scope 2) [3]	millions of t CO_2eq	1.0	1.2
Other indirect CO_2 emissions (Scope 3) [4]	millions of t CO_2eq	33.6	23.7
CO_2 emissions avoided [2,5]	millions of t CO_2eq	6.9	6.3
CO_2 intensity of business journeys and travel [6]	g CO_2/km	181	176
Energy consumption			
Total final energy consumption [2,7]	GWh	3,252	3,254
Proportion of renewable energies in final energy consumption [2,8]	%	51	49
Energy consumption of buildings per employee [2,9]	kWh/MA	10,482	10,214
Environmental protection expenditure [10]			
Investment in environmental protection	€ million	535	650
Current environmental protection expenses [2]	€ million	268	345

1 Preliminary data.
2 The figures for the previous year have been restated.
3 Includes greenhouse gas emissions through electricity grid losses and through electricity consumption of plants in the gas and electricity grid, water supplies and buildings.
4 Includes greenhouse gas emissions through consumption of purchased electricity volumes by customers, consumption of gas by customers, fuel provision and business travel.
5 Includes CO_2 emissions avoided through the expansion of renewable energies, through energy efficiency projects with customers/partners and through the generation and sale of biogas.
6 Includes all business travel and business activities (Scope 1 and Scope 3).
7 Includes final energy consumption of production including pump energy, energy consumption of grid facilities (electricity, gas and water) excluding grid losses, energy consumption of buildings and vehicles.
8 For electricity consumption for which the proportion of renewable energies is unknown, a proportion of renewable energies in accordance with the current Bundesmix (federal mix) label for electricity of 32% is used. For fuels, a proportion of 5% bioethanol is generally used.
9 Calculated partially on the basis of assumptions and estimations.
10 Pursuant to the German Environmental Statistics Act (UStatG) and BDEW guidelines on the recognition of investment and ongoing expenditure relating to environmental protection (April 2007).

Mobility at EnBW: EnBW further expanded its fleet of electric cars to 167 vehicles in 2018 and continues to follow the goal of being one of the largest electric fleet operators in Germany.

In order to motivate its employees to use alternative, environmentally friendly solutions for the daily trip to work, EnBW introduced attractive incentives for employees in 2018. These included, for example, a subsidy for the purchase of a yearly ticket to use the public transport systems in Karlsruhe and Stuttgart. In the "job bike" scheme, EnBW as an employer offers its employees the opportunity to purchase high-quality bikes and e-bikes at favourable conditions. As part of the "Your BMW i3" campaign, 180 employees were drawn at random from the numerous applicants and were given the opportunity to purchase the latest BMW i3 model at favourable conditions so they can complete their daily commute using electric power in future.

Hydropower: Electricity generated from hydropower protects the climate. At the same time, the use of hydropower also encroaches on nature. Therefore, EnBW is committed to harmonising hydropower with ecology. If power plants cause changes to the natural landscape, we compensate for these effects through ecological enhancement measures. For example, we ensure or improve the continuity of watercourses by constructing or optimising fish passes and fish ladders for fish to ascend or descend the river, such as at the small hydroelectric power plant in Maulburg. By constructing weir turbines, we guarantee that there is a sufficient level of residual water and also ensure that this water is used for climate-friendly energy generation such as at the hydropower plants in Wyhlen and Ladenburg.

Conservation of biological diversity: EnBW initiated the programme "Stimuli for Diversity" for the protection of amphibian species together with the LUBW (Baden-Württemberg State Institute for the Environment) in 2011. Due to the major success of and positive response to the programme in the first five years, the funding programme was updated in 2016 and has since also included funding for protective measures for reptiles. The EnBW funding programme "Stimuli for Diversity" is part of the project "The economy and business for nature", which is a component of the state initiative "Active for biological diversity". It still remains the only conservation programme from a company both in Baden-Württemberg and nationwide that not only funds the protection of one single species but two whole groups of species across the state. In the reporting year, nine further projects were realised. More than 100 measures have been implemented in total across Baden-Württemberg since the start of the funding programme, which have successfully improved the living conditions for many endangered species in the state. EnBW will also continue the funding programme in 2019 based on this tried-and-tested method.

We also refer you to the details provided in the "Report on opportunities and risks" (p. 118 f.).